

REMARKS

These amendments and remarks are being filed in response to the final Office Action dated March 24, 2005, and the Advisory Action June 16, 2005. For the following reasons this application should be allowed and the case passed to issue.

No new matter is introduced by these amendments. Support for the amendments to claims 16 and 23 are supported by pages 7 and 8 of the specification. Support for new claim 25 is found in claim 16.

Claims 16, 18, and 20-25 are pending in this application. Claims 16, 18, and 20-24 have been rejected. Claims 16 and 23 have been amended in this response. Claims 1-15, 17, and 19 have been canceled. Claim 25 is newly added.

Interview Summary

Examiner Bernatz is thanked for the courtesy of conducting a telephone interview on June 23, 2005 with the undersigned. During the course of the interview, the undersigned sought clarification that if the claims were amended as suggested by the Examiner in the Advisory Action of June 16, 2005, then the embossing surface would be considered the outer face of the stamper. The Examiner agreed that such an amendment should be sufficient to define the stamper as asserted by Applicants, however, the Examiner indicated that further consideration of the amended claims as would be required.

Claim Rejections Under 35 U. S. C. § 102

Claims 23 and 24 were rejected under 35 U.S.C. § 102(b) as being anticipated by Ishida et al. (WO 98/03972 and U.S. Patent No. 6,347,016). This rejection is traversed, and reconsideration and withdrawal thereof respectfully requested.

The Examiner asserted that Ishida et al. disclose a stamper comprising a main body having an embossing surface including a negative image of the servo pattern, wherein the embossing surface is formed of a material meeting applicants' claimed Markush limitations.

Claim 23 has been amended in accordance with the Examiner's recommendation in the June 16, 2005 Advisory Action. Ishida et al. do not anticipate the claimed stamper because Ishida et al. do not disclose an embossing surface wherein the embossing surface is a patterned surface layer of the stamper which directly contacts the surface of the sol-gel, and is formed of platinum, carbon, a polycarbonate, a polyetherimide, a polypropylene, or a polyethylene, as required by claim 23.

Claims 16, 18, 20, 21, and 23 were rejected under 35 U.S.C. § 102(b) as being anticipated by Takeoka et al. (U.S. Patent No. 4,845,000). This rejection is traversed, and reconsideration and withdrawal thereof respectfully requested.

The Examiner asserted that Takeoka et al. teach a stamper comprising a main body, formed of a first metal, having an embossing surface including a negative image of servo patterns, and means for facilitating release of the embossing surface of the stamper from a layer subsequent to embossing the servo patterns, wherein the embossing surface is formed of a material meeting applicants' claimed limitations. As regards claims 21 and 23, the Examiner alleged that element 52 of Fig. 2C corresponds to an embossing surface of a material meeting applicants' claimed limitations.

Claims 16 and 23 have been amended in accordance with the Examiner's recommendation in the June 16, 2005 Advisory Action. Takeoka et al. do not anticipate the claimed stamper because Takeoka et al. do not disclose an embossing surface wherein the embossing surface is a patterned surface layer of the stamper which directly contacts the surface

of the sol-gel, formed of platinum, carbon, or a hydrophilic polymer, as required by claim 16; and Takeoka et al. do not disclose an embossing surface wherein the embossing surface is a patterned surface layer of the stamper which directly contacts the surface of the sol-gel, formed of platinum, carbon, a polycarbonate, a polyetherimide, a polypropylene, or a polyethylene, as required by claim 23. As is clearly illustrated in Fig. 2C of Takeoka et al. layer 52 is not an embossing **surface**, as required by claims 16 and 23. The film 52 has two layers overlying it; an adhesive layer 16 and a highly releasable layer 18 made of metal. As understood by one of ordinary skill in this art, an embossing surface is the portion of the stamper that embosses the substrate to be embossed. As is known in this art, the commonly understood definition of a surface is the outer face, outside, or exterior body of a thing; outermost or uppermost layer or area. (*Random House Webster's Unabridged Dictionary*, 2d ed., p. 1914, 1998 (attached to Request for Reconsideration filed May 23, 2005)). Thus an embossing surface is the outer face of the stamper that embosses.

Claims 16 and 18 were rejected under 35 U.S.C. § 102(b) as being anticipated by Zager et al. (U.S. Patent No. 5,552,009). This rejection is traversed, and reconsideration and withdrawal thereof respectfully requested.

The Examiner averred that Zager et al. disclose a stamper comprising a main body comprising an opaque metal relief image layer, an embossed photohardenable film, and a fluoropolymer means for facilitating release of the embossing surface of the stamper. As regards claim 18, the Examiner further asserted that Zager et al. disclose that polycarbonate can be used as a substrate.

Zager et al., however, do not anticipate the claimed stamper. Zager et al. do not disclose a stamper comprising a main body formed of a first metal and an embossing surface wherein the

embossing surface is a patterned surface layer of the stamper which directly contacts the surface of the sol-gel, formed of platinum, carbon, or a hydrophobic polymer, as required by claim 16.

Further, as regards claim 18, Zager et al. do not disclose **stamper substrates** formed of polycarbonate. Rather, Zager et al. disclose that the substrate of the optically readable medium can be formed of polycarbonate.

Contrary to the Examiner's assertion with respect to claim 16, Zager et al. do not disclose a stamper with a main body comprising a first metal and an embossing surface comprising a fluoropolymer. As disclosed in column 11, lines 14-16 and lines 25-33, Zager et al. teach an opaque metal on a glass or quartz body as one embodiment of a stamper and a photopolymerized body with a release coating as another embodiment of a stamper. The Examiner apparently combined two different embodiments to reject claim 19. However, Zager et al. does not suggest combining these two **different** embodiments.

The factual determination of lack of novelty under 35 U.S.C. § 102 requires the identical disclosure in a single reference of each element of a claimed invention, such that the identically claimed invention is placed into the possession of one having ordinary skill in the art. *Helifix Ltd. v. Blok-Lok, Ltd.*, 208 F.3d 1339, 54 USPQ2d 1299 (Fed. Cir. 2000); *Electro Medical Systems S.A. v. Cooper Life Sciences, Inc.*, 34 F.3d 1048, 32 USPQ2d 1017 (Fed. Cir. 1994). There are significant differences between the claimed stampers and the stampers disclosed by Ishida et al., Takeoka et al. and Zager et al. that would preclude the factual determination that Ishida et al., Takeoka et al. and Zager et al. identically describe the claimed stamper within the meaning of 35 U.S.C. § 102. As explained above, Takeoka et al. and Zager et al. do not disclose a stamper comprising a main body formed of a first metal and an embossing surface wherein the embossing surface is a patterned surface layer of the stamper which directly contacts the surface

of the sol-gel, formed of platinum, carbon, or a hydrophobic polymer, as required by claim 16; and Ishida et al., Takeoka et al. and Zager et al. do not disclose a stamper comprising an embossing surface wherein said embossing surface is a patterned surface layer of the stamper which directly contacts the surface of the sol-gel, formed of platinum, carbon, a polycarbonate, a polyetherimide, a polypropylene, or a polyethylene, as required by claim 23. Accordingly, the rejections under 35 U.S.C. § 102 are not legally viable and should be withdrawn.

Applicants further submit that Ishida et al., Takeoka et al., and Zager et al., whether taken alone, or in combination do not suggest the claimed stamper. *

Claim Rejections Under 35 U. S. C. § 103

Claims 22 and 24 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Takeoka et al. and further in view of Ishida et al. This rejection is traversed, and reconsideration and withdrawal thereof respectfully requested.

The Examiner acknowledged that Takeoka et al. fail to disclose using an embossing surface formed of a polyetherimide or a main body meeting applicants' claimed limitations. The Examiner deemed that materials disclosed in Takeoka et al. and the claimed materials are known equivalents in the field of stampers, as allegedly taught by Ishida et al. The Examiner did not disclose which of the claimed materials and the materials taught by Takeoka et al. are known equivalents. The Examiner merely concluded that the disclosed materials in Takeoka et al. for the corresponding layers are equivalents in the field of known polymeric materials capable of meeting the processing and use requirements for magnetic stampers. Furthermore, Ishida et al. do not cure the deficiencies of Takeoka et al., as Ishida et al. do not suggest an embossing surface wherein the embossing surface is a patterned surface layer of the stamper which directly contacts the surface of the sol-gel, and the embossing surface is formed of platinum, carbon, a

hydrophobic polymer, a polycarbonate, a polyetherimide, a polypropylene, or a polyethylene, as explained above.

Claim 20 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Zager et al. and further in view of Ishida et al. This rejection is traversed, and reconsideration and withdrawal thereof respectfully requested.

The Examiner acknowledged that Zager et al. do not disclose a first metal formed of nickel. However, the Examiner noted that Zager et al. teach that conventional stampers in the art are formed using nickel. Therefore, the Examiner concluded that it would have been obvious to use nickel as the base layer of the Zager et al. stamper.

As described above, however, Zager et al. do not suggest a stamper comprising a main body formed of a first metal and an embossing surface wherein the embossing surface is a patterned surface layer of the stamper which directly contacts the surface of the sol-gel, and the embossing surface is formed of platinum, carbon, a hydrophobic polymer, as required by independent claim 16. Further, Ishida et al. do not cure these deficiencies of Zager et al., as explained above. Thus, dependent claim 20 is allowable for at least the same reasons as claim 16.

Claims 21, 23, and 24 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Zager et al. and further in view of Ishida et al. This rejection is traversed, and reconsideration and withdrawal thereof respectfully requested.

The Examiner acknowledged that Zager et al. fail to teach forming the photohardenable film of a material meeting applicants' claimed limitations. The Examiner apparently concluded that polyimides disclosed by Ishida et al. are equivalent to the polyetherimide required by the

instant claims. The Examiner declared, “polyetherimides are simply a subset of polyimides and exhibit similar properties,” without explaining what are the similar properties.

The Examiner did not provide any support for the conclusion that polyetherimides are equivalent to polyimides. Polyetherimides are structurally very different from generic polyimide resin. As known in this art, polyetherimide comprises a bisphenol group in the main chain of the polymer, not required in generic polyimides. *See Concise Encyclopedia of Polymer Science and Engineering*, pp. 327-328 (attached to Request for Reconsideration filed May 23, 2005). Though polyetherimides may be considered a species (or subset as asserted by the Examiner) of generic polyimides, a genus (polyimide) does not render a species (polyetherimide) obvious merely because the genus encompasses the species. The fact that a claimed species or subgenus is encompassed by a prior art genus is not sufficient by itself to establish a *prima facie* case of obviousness. *In re Baird*, 16 F.3d 380, 382, 29 USPQ2d 1550, 1552 (Fed. Cir. 1994). Furthermore, Ishida et al. do not disclose that the embossing surface is a patterned surface layer of the stamper which directly contacts the surface of the sol-gel, and the embossing surface is formed of platinum, carbon, or a hydrophobic polymer, such as polyimide. As clearly explained and illustrated in Ishida et al. (col. 23, lines 4-28, and FIG. 14c) the embossing surface is the ferromagnetic layer 143, not the supporting polyimide layer 142. As explained above, Ishida et al. do not cure these deficiencies of Zager et al.

Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge readily available to one of ordinary skill in the art. *In re Kotzab*, 217 F.3d 1365, 1370 55 USPQ2d 1313, 1317 (Fed. Cir. 2000); *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941

(Fed. Cir. 1992); *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). The Examiner has not shown any suggestion in Ishida et al., Takeoka et al., or Zager et al. to provide the claimed stamper comprising a main body formed of a first metal and an embossing surface wherein the embossing surface is a patterned surface layer of the stamper which directly contacts the surface of the sol-gel, and the embossing surface is formed of platinum, carbon, a hydrophobic polymer, a formed of platinum, carbon, or a hydrophobic polymer, as required by claim 16; or a stamper comprising an embossing surface formed of platinum, carbon, a polycarbonate, a polyetherimide, a polypropylene, or a polyethylene. Further, the Examiner has not shown any suggestion in Ishida et al., Takeoka et al., or Zager et al. to combine the references as asserted. Although, a reference can be modified, the prior art must suggest the desirability of modifying a reference. See *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990). The Examiner has not shown any suggestion in either Ishida et al., Takeoka et al., or Zager et al. to modify the references.

The Examiner is required to discharge the initial burden by, *inter alia*, making **clear and particular** factual findings as to a **specific understanding or specific technological principle** which would have **realistically** impelled one having ordinary skill in the art to modify the claims an applied reference to arrive at the claimed invention based upon facts, -- not generalizations.

Ruiz v. A.B. Chance Co., 234 F.3d 654, 57 USPQ2d 1161 (Fed. Cir. 2000); *Ecolochem Inc. v. Southern California Edison, Co.*, 227 F.3d 1361, 56 USPQ2d 1065 (Fed. Cir. 2000); *In re Kotzab, supra*; *In re Dembicza*k, 175 F.3d 994, 50 USPQ2d 1614 (Fed. Cir. 1999). That burden has not been discharged, as the Examiner has provided no factual basis for modifying the stampers of Ishida et al., Takeoka et al., or Zager et al. to obtain the claimed stampers. The Examiner did not make the requisite "clear and particular" factual findings to support the

conclusion that one having ordinary skill in the art would have been realistically led to deviate from the teachings of Ishida et al., Takeoka et al., or Zager et al. obtain the claimed stampers.

The requisite motivation to support the conclusion of obviousness must stem from the applied prior art as a whole and realistically impel one having ordinary skill in the art to modify a specific reference in a specific manner to arrive at a specifically claimed invention. *In re Deuel*, 51 F.3d 1552, 34 USPQ2d 1210 (Fed. Cir. 1995); *In re Newell*, 891 F.2d 899, 13 USPQ2d 1248 (Fed. Cir. 1989). Accordingly, the Examiner is charged with the initial burden of identifying a source in the applied prior art for the requisite realistic motivation. *Smiths Industries Medical System v. Vital Signs, Inc.*, 183 F.3d 1347, 51 USPQ2d 1415 (Fed. Cir. 1999); *In re Mayne*, 104 F.3d 1339, 41 USPQ2d 1449 (Fed. Cir. 1997). The Examiner has not met the burden of identifying a source in the applied prior art for the required realistic motivation of modifying the stampers of Ishida et al., Takeoka et al., or Zager et al. to obtain the claimed stampers comprising a main body formed of a first metal and an embossing surface wherein the embossing surface is a patterned surface layer of the stamper which directly contacts the surface of the sol-gel, and the embossing surface is formed of platinum, carbon, a hydrophobic polymer, a formed of platinum, carbon, or a hydrophobic polymer, as required by claim 16; and comprising an embossing surface formed of platinum, carbon, a polycarbonate, a polyetherimide, a polypropylene, or a polyethylene, as required by claim 23.

There is no factual basis in Ishida et al., Takeoka et al. and Zager et al. to support the conclusion that one having ordinary skill in the art would have been led to devise the stampers required by claims 16 and 23.

The only disclosure of the claimed stampers is found in Applicants' disclosure. The teaching or suggestion to make a claimed invention and the reasonable expectation of success,

however, must both be found in the prior art, and not be based on Applicants' disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). Apparently, the Examiner has relied on impermissible hindsight reasoning in reaching the conclusion of obviousness.

The dependent claims are allowable for at least the same reasons as the independent claims and further distinguish the claimed invention. For example, claim 18 further requires that the hydrophobic polymeric material polymer comprises an amorphous thermoplastic material. Claim 20 further requires the first metal is nickel and the embossing surface is formed of a sputtered hydrophobic polymer. Claim 22 further requires that the embossing surface is formed of a polyetherimide, and claim 24 further requires that the main body is formed of a hydrophobic polymeric material.

In view of the above remarks, Applicants submit that this application should be allowed and the case passed to issue. If there are any questions regarding this Amendment or the application in general, a telephone call to the undersigned would be appreciated to expedite the prosecution of the application.

To the extent necessary, a petition for an extension of time under 37 C.F.R. § 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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